

CLAIMS

1. An information exchange method used for furnishing, according to an instruction from a server, to terminal devices, a given number of pieces of real-time and/or live streaming video information out of a plurality of pieces of real-time and/or live streaming video information that are gathered by a plurality of information gathering devices,

said server being adapted to link each of said terminal devices to the information gathering device that gathers a given number of pieces of real-time and/or live streaming video information that are asked for from its linked terminal device, out of said plurality of information gathering devices, said server being also adapted to direct the information gathering devices to deliver the given number of pieces of real-time and/or live streaming video information to their linked terminal device,

each of said terminal devices being adapted to produce video image including a given number of real-time and/or live streaming video images that are received from the predetermined number of information gathering devices and display it on a predetermined certain screen.

2. The information exchange method as claimed in Claim 1, wherein said server obtains a link destination address of the respective information gathering devices that gather the given number of real-time and/or live streaming video images that are asked for from said terminal devices and notifies said terminal devices of their corresponding link destination addresses,

each of said terminal devices being adapted to access the information gathering device specified by the link destination address that is notified by said server in order to obtain a predetermined piece of real-time and/or live streaming video information.

3. The information exchange method as claimed in Claim 1, wherein said server makes a request to each of the information gathering devices that gather a given number of real-time and/or live streaming video images that are asked for from each of said terminal devices,

said information gathering devices being adapted to supply real-time and/or live streaming video information to their linked terminal devices in response to a request from said server.

5 4. The information exchange method as claimed in Claim 1, wherein said server sends a link destination setting table to each of said terminal devices, the link destination setting table containing links to said information gathering devices,

each of said terminal devices accesses its linked information gathering device(s) according to the link destination setting table.

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5. The information exchange method as claimed in Claim 4, wherein said server or said information gathering devices hold(s) the link destination setting table that has been sent to each of said terminal devices,

each of said terminal devices being adapted to send the link destination setting table to said server or said information gathering devices upon access to its linked information gathering device(s),

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said server or said information gathering devices comparing the link destination setting table that is held therein with the link destination setting table that is sent from said terminal devices upon access to their linked information gathering devices in order to control access by said terminal devices.

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6. The information exchange method as claimed in Claim 1, wherein said information gathering device is a content server that provides a desired content to said terminal device.

25 7. An information processor used for furnishing, to terminal devices, a given number of pieces of streaming video information out of a plurality of pieces of real-time and/or live streaming video information that are gathered by a plurality of information gathering devices, comprising:

acceptance means for accepting a request from each of said terminal devices; and

linking means for linking each of said terminal devices to the information gathering device that gathers a given number of pieces of real-time and/or live streaming video information that are asked for from its linked terminal device, out of said plurality of information gathering devices, in response to a request that has been accepted by said acceptance means from each of said terminal devices.

8. The information exchange device as claimed in Claim 7, comprising link destination setting table sending means for sending, to each of said terminal devices, a link destination setting table having link destinations, each of said terminal devices being permitted to link to said information gathering devices that are specified by said link destinations.

9. The information exchange device as claimed in Claim 8, comprising access control means that holds the link destination setting table that has been sent to each of said terminal devices, said access control means comparing the link destination setting table that is held therein with the link destination setting table that is sent from said terminal devices upon access to their linked information gathering devices in order to control access by said terminal devices.

10. An information processor for displaying a selected given number of pieces of real-time and/or live streaming video information out of pieces of real-time and/or live streaming video information that are gathered by a plurality of information gathering devices, comprising:

linking means for establishing a link to the information gathering device that gathers a given number of pieces of real-time and/or live streaming video information that are asked for, out of said plurality of information gathering devices; and

display control means that produces video image including a given number of pieces of real-time and/or live streaming video information that are received from a predetermined number of real-time and/or live information gathering devices to which links are established by said linking means and displays it on a predetermined certain screen.

11. The information processor as claimed in Claim 10, wherein said linking means establishes a link according to a link destination setting table having link destinations to which link is permitted, out of said information gathering devices.

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12. An information processor used for furnishing, to terminal devices, a given number of pieces of streaming video information out of a plurality of pieces of real-time and/or live streaming video information that are gathered by a plurality of information gathering devices, comprising:

10 acceptance means for accepting a request from each of said terminal devices; and

directing means that directs a given number of information gathering devices corresponding to said terminal devices to send the given number of pieces of streaming video information, in response to a request that has been accepted by said acceptance means from each of said terminal devices.

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13. An information processor for displaying a given number of pieces of real-time and/or live streaming video information that are asked for to a server, out of a plurality of pieces of real-time and/or live streaming video information that are gathered by a plurality of information gathering devices, comprising:

20 requesting means that asks for a given number of pieces of real-time and/or live streaming video information to said server; and

display control means that is adapted to receive a given number of pieces of real-time and or live streaming video information that are asked for, from the corresponding information gathering device(s) in response to a request from said server, and adapted to
25 produce video image including the pieces of real-time and/or live streaming video information and display it on a predetermined certain screen.

14. An information gathering system comprising:

a plurality of information gathering devices that gather real-time and/or live

streaming video information; and

a server which is adapted to accept a request from a terminal device and to link said terminal device to the information gathering device that gathers the real-time and/or live streaming video information that is asked for from said terminal device, said server being
5 also adapted to direct said information gathering device to send the real-time and/or live streaming video information to said terminal device.

15. The information gathering system as claimed in Claim 14, wherein said server sends a link destination setting table to said terminal device, the link destination setting table
10 containing links to said information gathering devices,

said terminal device accesses its linked information gathering device(s) according to the link destination setting table.

16. The information gathering system as claimed in Claim 15, wherein said server or
15 said information gathering devices hold(s) the link destination setting table that has been sent to said terminal device,

said terminal device being adapted to send the link destination setting table to said server or said information gathering devices upon access to its linked information gathering device(s),

20 said server or said information gathering devices comparing the link destination setting table that is held therein with the link destination setting table that is sent from said terminal device upon access to its linked information gathering device(s) in order to control access by said terminal device.

25 17. An information gathering system comprising:

a plurality of information gathering devices that gather real-time and/or live streaming video information; and

a server which is adapted to accept a request from a terminal device and to direct the information gathering device that gathers real-time and/or live streaming video information

that is asked for from said terminal device, to send the real-time and/or live streaming video information to said terminal device.

18. The information gathering system as claimed in Claim 17, wherein said server sends
5 a link destination setting table to said terminal device, the link destination setting table containing links to said information gathering devices,

said terminal device accesses its linked information gathering device(s) according to the link destination setting table.

10 19. The information gathering system as claimed in Claim 18, wherein said server or said information gathering devices hold(s) the link destination setting table that has been sent to said terminal device,

said terminal device being adapted to send the link destination setting table to said
server or said information gathering devices upon access to its linked information gathering
15 device(s),

said server or said information gathering devices comparing the link destination
setting table that is held therein with the link destination setting table that is sent from said
terminal device upon access to its linked information gathering device(s) in order to control
access by said terminal device.

20 20. A content presentation program that directs a computer to execute:

a content acquisition step to acquire a content on each of predetermined channels;
and

a display control step to cause the content that is acquired in the first step to be
25 displayed in a window that is determined previously for said channels, out of a plurality of display sections that are defined within a predetermined window.

21. An information processor that causes a content to be displayed on a display unit,
comprising:

content acquisition means for acquiring a content on each of predetermined channels; and

display control means that causes the content that is acquired in the first step to be displayed in a window that is determined previously for said channels, out of a plurality of display sections that are defined within a predetermined window.

22. An information processing method comprising:

a content acquisition step to acquire a content on each of predetermined channels; and

a display control step to cause the content that is acquired in the first step to be displayed in a window that is determined previously for said channels, out of a plurality of display sections that are defined within a predetermined window.

23. A communication method for transmitting packets between a client and a server through a plurality of intermediary devices, comprising:

performing communications more than once by using a certain command between said client and said server;

measuring a communication performance during said communications; detecting a communication route of said certain command by adding the addresses of the intermediary devices to said certain command on an add-per-passage basis; and

performing communications between said client and said server through the communication route which yields the maximum communication performance with respect to said communication route.

24. An intermediary device which intermediates a client and a server, comprising:

command detection means for detecting a certain command that is transmitted between said client and said server;

route information detection means for detecting route information contained in communication data that are transmitted between said client and said server; and

intermediacy control means which is adapted to send said certain command to a network after adding its local address to it when said certain command is detected, said intermediacy control means relaying the communication data when its local address is contained in the route information detected by said route information detection means.

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25. A communication system for performing communications between a client and a server through a network, comprising:

bypassing means which allows communication between said client and said server while bypassing said network.

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26. The communication system as claimed in Claim 25, comprising:

measuring means for measuring a communication performance between said client and said server; and

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communication control means that causes said bypassing means to bypass said network when the communication performance measured by said measuring means is lowered under a certain level.

27. A communication system for performing communications between a client and a server through a network, wherein

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said server comprises a node server adapted to accept a request from said client; and a content server adapted to send, to said client, a content that is asked for by said client in answer to a request from said node server.

28. A communication system for performing communications between a client and a server through a network, wherein

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said server comprises a content server which provides a content to said client; and a node server adapted to accept a request from said client and to provide said client with link destination information of said content server that stores a content that is asked for by said client;

said client being adapted to ask for a content to said content server according to the link destination information from said node server.

29. The communication system as claimed in Claim 28, wherein said node server has a hierarchical structure based on said content or its link destination;

said node server having a function to backup information about contents managed by node servers at upper and lower levels.

30. A communication device for performing communications with a client through a network, said communication device being adapted to provide a content to said client by means of accessing a content server that provides content in answer to a request from said client, comprising:

caching means for caching contents in said content server according to the frequency of accesses from said client;

said communication device being adapted to send, to said client, a cached content in answer to a request from said client.